

Notice of Allowability

Application No.

10/786,430

Applicant(s)

KIRKLAND ET AL.

Examiner

Art Unit

Greg Cunningham

2676

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to application filed 2/25/2004.
2. ☒ The allowed claim(s) is/are 1-5.
3. ☒ The drawings filed on 25 February 2004 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☐ All b) ☐ Some* c) ☐ None of the:
 1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
 - * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☒ Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 5/27/2004
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____.
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____.

DETAILED ACTION

1. This action is responsive to application filed 2/25/2004.
2. The disposition of the claims is as follows: claims 1-5 are pending in the application.

Claims 1 and 3 are the independent claims.

Allowable Subject Matter

3. Claims 1-5 and are allowed.
4. The following is an examiner's statement of reasons for allowance:

Applicant's independent claims 1 and 3 stand novel over the related prior art. For instance, the related art of Duluk, Jr. et al. (U.S. Patent Number 6,476,807 B1), does make use of a transparency mode with particular coverage masks, while the related art of Stroyan, (U.S. Patent Number US 6429877 B1), provides for anti-aliasing edges of adjacent primitives. In accordance with one aspect of the invention, a method operates by determining whether a pixel is an edge pixel of a filled primitive, approximating a coverage area of the pixel, the coverage area being the area of the pixel interior to the primitive edge, determining a direction from the pixel center to an external edge of the primitive, and blending a first color of the primitive with a second color, the second color being a color of a pixel of a second primitive adjacent the external edge. In accordance with another aspect of the invention, a system is provided having frame buffer circuitry uniquely configured for rendering an anti-aliased graphics scene. However neither Duluk, Jr. et al. nor Stroyan teach:

A method for using random coverage masks for reducing visual artifacts while rendering transparent objects, said method comprising the steps of: selecting a first index from a plurality

Art Unit: 2676

of sources; receiving a second index from a first shuffle table based on said first index; obtaining a transparency mask from a transparency table based on said second index; and generating a new coverage mask by combining said transparent mask with a coverage mask, as provided for in independent claim 1; nor

A system for generating random coverage masks for use in rendering transparent objects, said system comprising: first index selecting means for selecting a first index from a plurality of sources; a shuffle table in communication with said first index selecting means, said shuffle table receiving said first index and outputting a second index; a transparency table in communication with said shuffle table, said transparency table receiving said second index and generating a transparency mask; and means for combining said transparency mask with a coverage mask and producing a random coverage mask, wherein said random coverage mask randomly enables samples of transparent objects, as provided for in independent claim 3.

Therefore as claimed by the combined elements of independent claims 1 and 3, the cited references and prior art of record lack separately and in combination the elements of amended claims. Claims 2 and 4, 5 depend from allowed independent claims 1 and 3, respectively, and therefore are also allowed.

5. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2676

Responses

6. Responses to this action should be mailed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231. If applicant desires to fax a response, (703) 872-9306 may be used for formal communications.

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA., Sixth Floor (Receptionist).

Inquiries

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Greg Cunningham whose telephone number is (703) 308-6109. The examiner can normally be reached on Monday - Thursday from 7:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Matthew Bella, can be reached on (703) 308-6829.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

J.F. Cunningham, Examiner

gfc

December 7, 2004

Matthew C. Bella

MATTHEW C. BELLA
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600